

FIG. 1

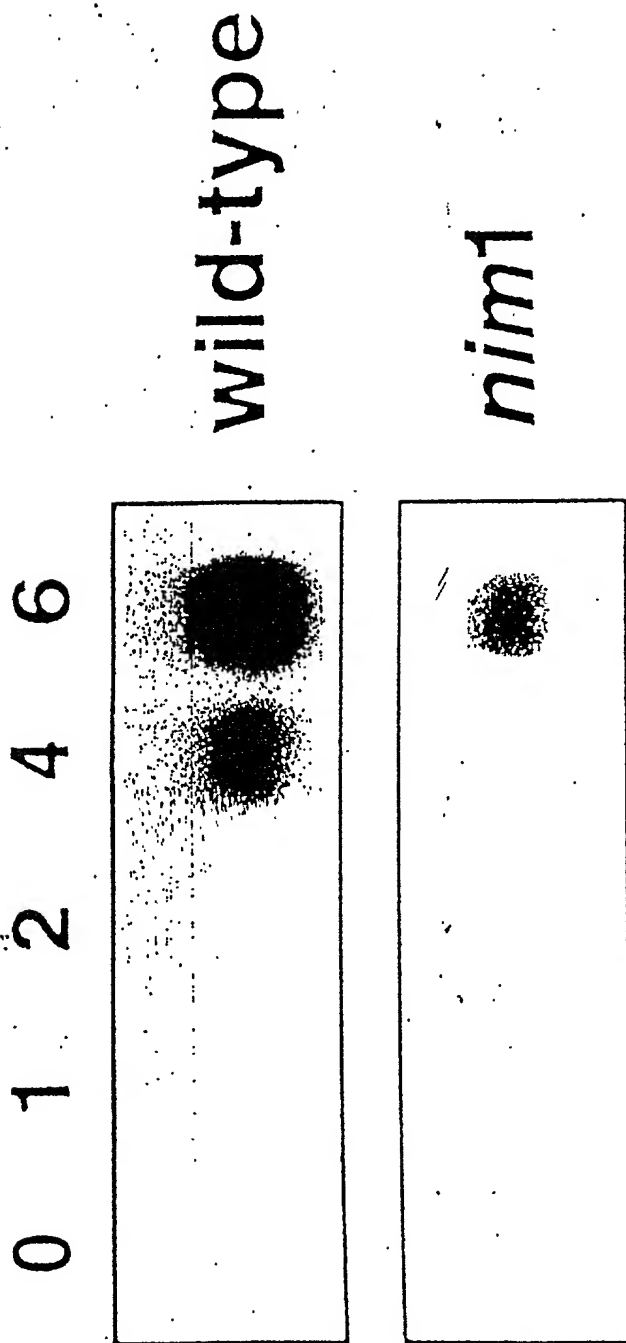


FIG. 2

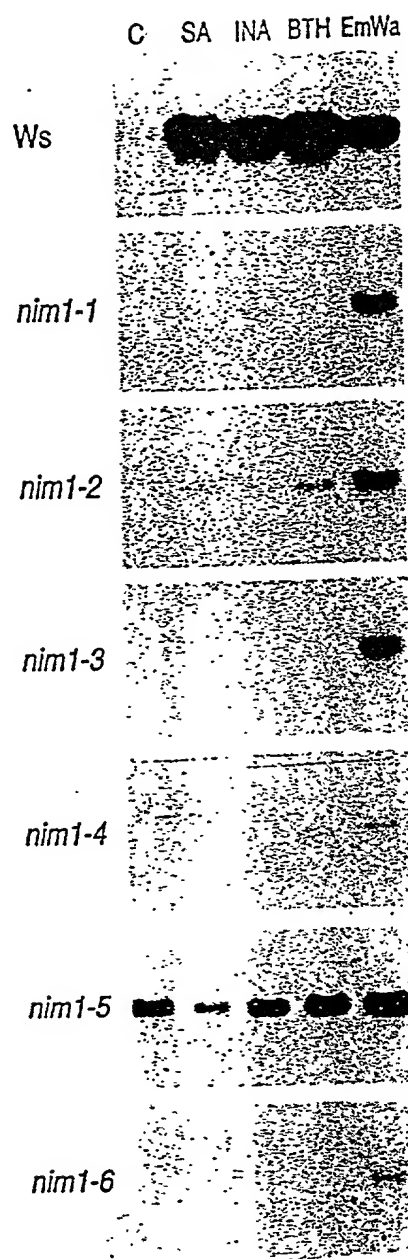


FIG. 3

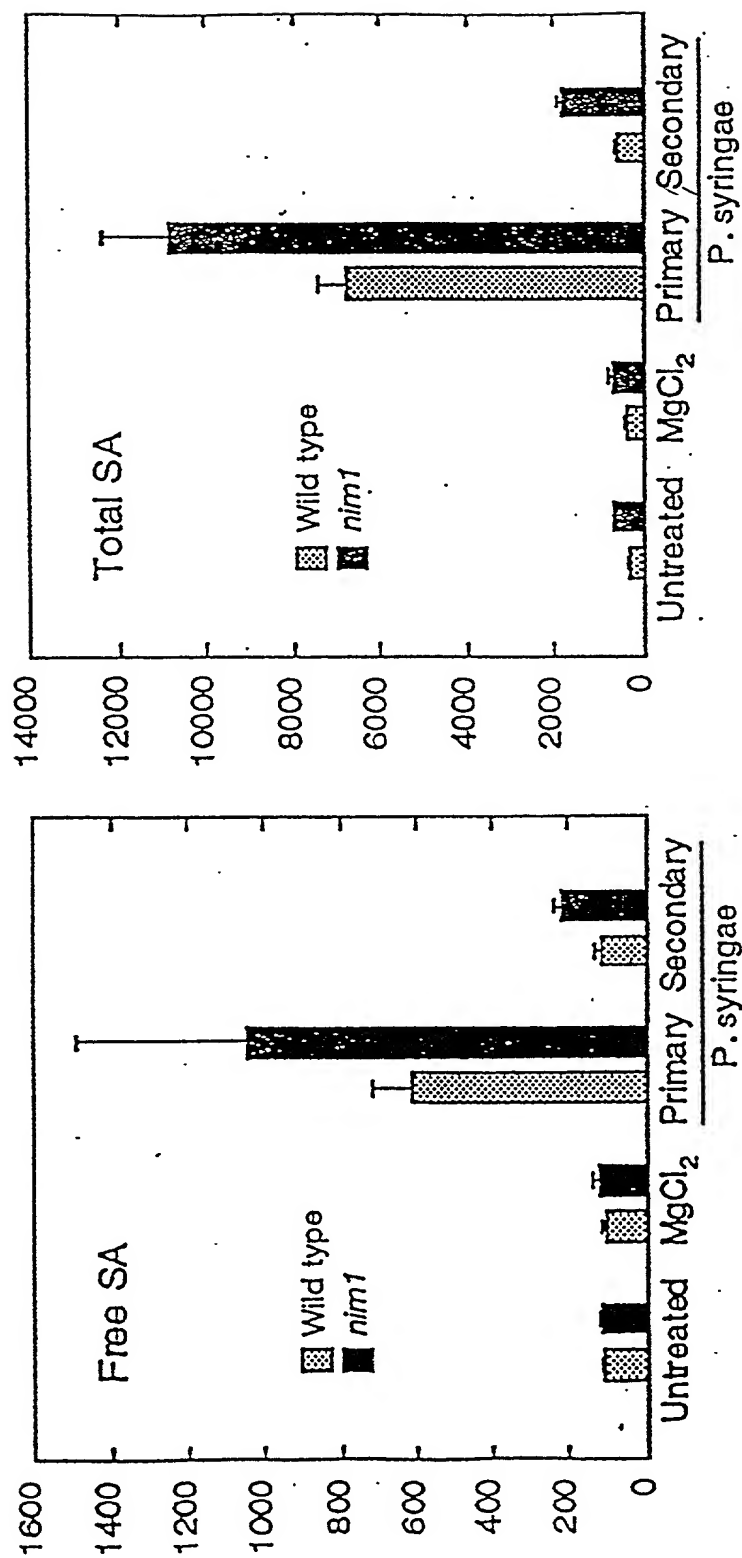


FIG. 4

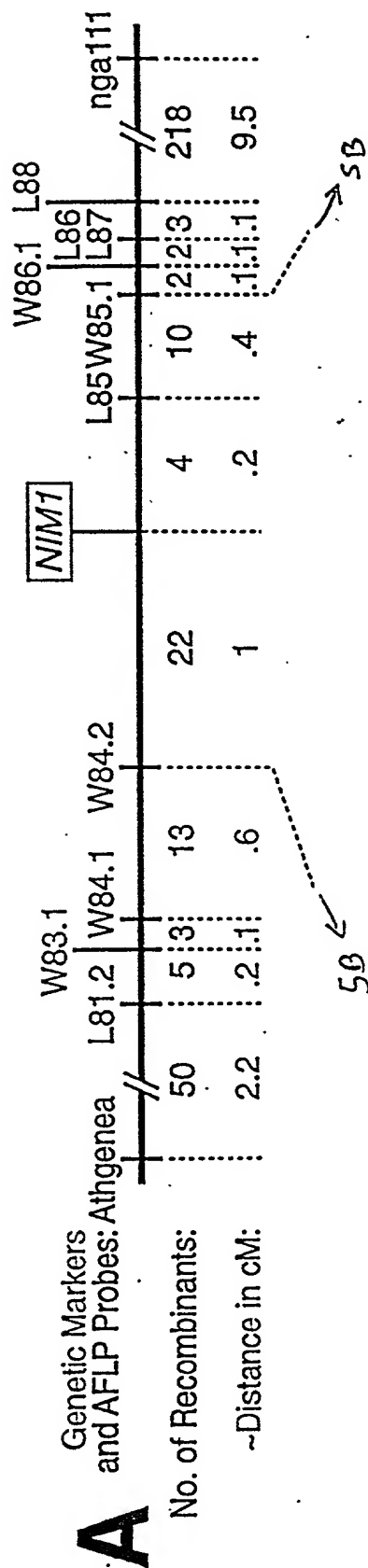


FIG. 5A

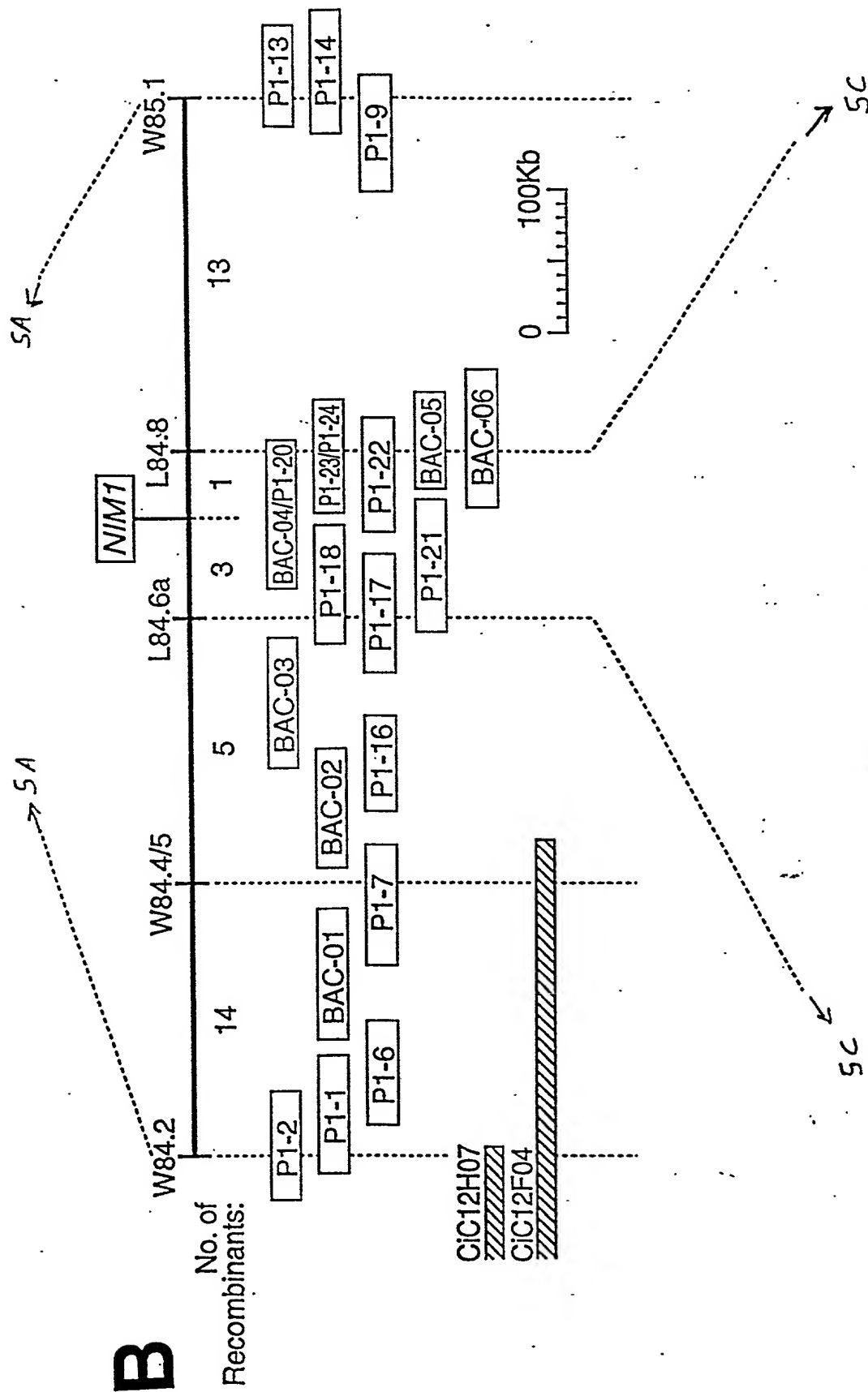
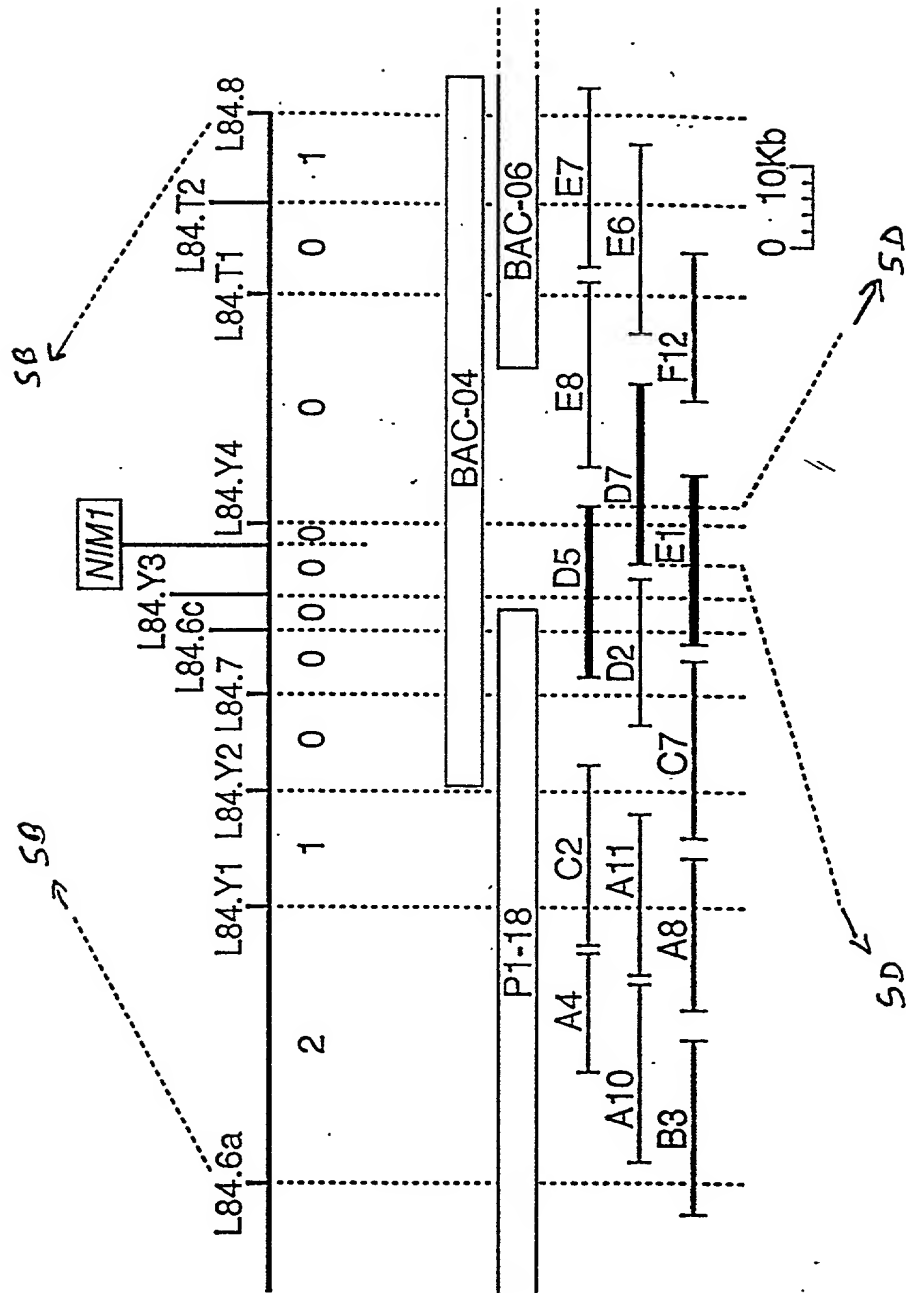


FIG. 5B



No. of Recombinants:

FIG. 5C

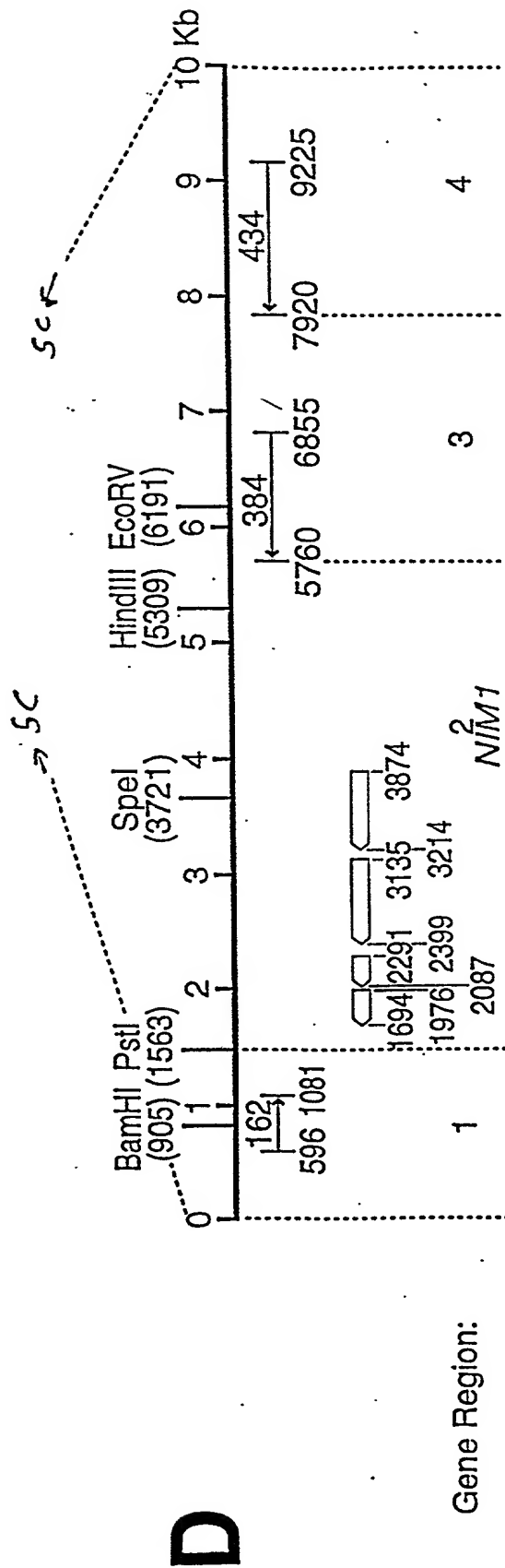


FIG. 5D



tggatgcaagtcattgggatatgcttgggttaagtatacaaaacccatccggtgatacatagctctcaaacaccactaaacagtaacaggatcatatc 100  
 caagccaggaagtgagggttgggatatgcttgggtttagcggttaaccccttccgggtatacaaaacaaagggttccgagtcctggcg 200  
 tatggtatgctcgggttatctaccatttgaaatcacagaaactttatgtgggaagtttctgattctggttaccctgggaagagattagaaatttg 300  
 cgtctaccacaaacagagagataatttttccaaacccgatacaagtttccgggttcttgcattgggatatcacggaaacaaatgtagctgggtttgttc 400  
 tcaaaacccgaacttggccttctccatactccgaactctgattgtttctcaggatttagtcagatacgaagggagctagggtgctattcgtcagtgagac 500  
 aaacaaagatcaagaagatggttcacaggttatgggtttttaaagagcagtttgaagagctgggtttaaagtgaaagatattaaagacattggagtagat 600  
 ttgattacgtgggactccaaagcaagcagcttgattgtttctgtagtagtgatcggttgcctctacaacataaaacagagaaagtgaatttagttatg 700  
 caaaacaaaggggattctgattgttttctggttttctcgttttctgattacagaggggttgatctgaacaggaagcaacggggcagacatttta 800  
 aaaaaaaataaaaaaaatggggcagcaaatgcaaacgtagtgcagaggtatctcaagctcacaagctcaattggcctcattgtggggcagaaatat 900  
 atctagttagtatttattgttttataaagtaaaaggaatttgatttttctttaggtttatgttaataacaaacattgttttatgaattatt 1000  
 aactgtatttttggctagttattttatatacaaggggttctgttttatagtgaaacagttactgtatagaaaaagtgctcccaattttctctcttta 1100  
 aataatattatttttaataaagatttttaataatttagatatatacaataattctaaagcaacacatttttagcaacacagtaataattctactattgt 1200  
 ttacattattatttagctttaccaataataacccgtatctattgttttataagcttttatacaatatatgtacgggtattgtgtccacgtatataattctcca 1300  
 aaaaacacgcatggttacacaaaaatttataaattttggcaattgggtgttttatcaaaagtttatcccaattttatcaactataatagatggtagaaga 1400  
 taazaaattatatacagattgatttcaatttaattttataatatatcatttttaaaaaaataaataaagaaactatttcaataaattgttcaaaagataa 1500  
 ttatgaataata 1600  
 taagaaatacaaaagtaaaaaacgggaaagcaataattttatttacccttattataaactctataaagtagtctgtttatccaacataaacttactgtt 1700  
 ttgtatccatagcattcttcaactctt 1800  
 atcgagattctt 1900  
 tggctt 2000  
 aattgttttataaata 2100  
 agaggttttctt 2200  
 tctaatcaacgaaata 2300  
 acgaaatgttaactttcacagcaaatcttcaattcttcaattcttcaattcttcaattcttcaattcttcaattcttcaattcttcaattcttcaatt 2400  
 atactttatatacattctcaaatctt 2500  
 aataatcaaacattttataacccgaacgggtttagcttcttcttcttcttcttcttcttcttcttcttcttcttcttcttcttcttcttctt 2600  
 TTGGTGAATGTAAACCGTGGGACGAGGATCTTCTCATATCTCACCACCACTCTCGTTGACTTGACTTGCTTGCTTGCTTGCTTGCTTGCTTGCTTGCT 2700  
 TTTAACCAATCCAGTGTATAGGTCTCTTCTGTTGATTACGACGATCTTCTTAATTTGTGAATTTCAATTCATCCGAACCTGTTGATGGACACCACT 2800  
 H D T T I  
 TGATGGATTCCCGGATTCTTATGAATCAGCAGCACTAGTTTCTGCTGCTACCGATAACACCGACTCTCTTATTGTATCTGCGCCGCAACAGTACT 2900  
 D G F A D S Y E I S S T S F V A T D N T D S S I V Y L A A E Q V L  
 ACCGGACCTGATGTATCTGCTTCTGCAATGTCTTCCACAGCTTGGAACTCCGTTTCTGACTCGCCGATGATTCTACAGCGACCTAAGCTTGTCTCT 3000  
 T G P D V S A L Q L L S N S F E S V F D S P D D F Y S D A K L V L  
 CCGACCGCCGGAGTGTCTTCCACCGGTGCTTGTGTCAGCGAGAACTCTTCTTCAAGACGCTTTAGCCGCTTAAAGAGGAGAGAGAGAGAGAGAG 3100  
 S D G R E V S F H R C V L S R F F K S A L A A A K K E K D S N  
 CAACACCGCCCGGTGAGCTTAAAGAGATTGCGAAGGATTACGAGTGGTTCGATTCTGCTTGTGACTGTTTGGCTTATGTTTACAGCAGC 3200  
 N T A A V K L E A K D Y E V G F D S V V T V L A Y V Y S  
 AGAGTGAACCGCCGCTTAAAGAGTGTCTGCAATCCGACAGGAGATTTCTGCCACGTCGCTTCCCGCCCGCCGCTTCAATGTTTGAAGGTCTCT 3300  
 R V R P P P K G A D E N C A D E N C H V A C R P A V D F M L E V L  
 - deleted in n1ml-3  
 ATTTCGCTTCTATCTTCAAGATCCCTGAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3400  
 Y L A F I F K I P E L I T L Y Q  
 cttgagttactgtatt 3500  
 R H L L D V V D K V V I E D T L V I L K L A N I C  
 A inserted in n1ml-1  
 TGGTAAAGCTTGTATGAAGCTATTGGATAGATGTAAAGAGATTATGCAAGTCTAAATGATATGGTATGCTTGAAGTCTTGGCCGAGAGAGCTT 3600  
 G K A C M K L D R C K E I V K S N V D H V S L E K S L P E E L  
 GTTAAAGAGATTAATGATAGAGCTTAAAGAGCTTGGTTTGGAGGATACCTAAGTAAAGAAACATGCTGCAATGTACATAAGCCACTTGACTCGGATATA 3700  
 V K E I I D R R K E L G L E V P K V K K H V S N V H K A L D S D D  
 T in n1ml-2  
 TTGATGATGCTCAAGTCTCTTGAAGAGGAGTACACCAATCTAGATGATGCTGCTTCTTCAATTCGCTTGTGATATGCAATGGAAGAGAGAGAG 3800  
 I E L V L K L E L D E H T M L L D D A C A L H F A V A Y C N V K T A T  
 T in n1ml-6  
 AGATCTTTTAAAGCTTGTATCTTGGGATGTCAACCATAGGAATCCGAGCGGATATACGCTGCTTATGTTCTGCTGCTGCTGCTGCTGCTGCTGCT 3900  
 D L L K L D L A D V N H R N P R G Y T V L H V A A H R K E P O L I  
 CTATCTCTTATGGAAGAGTGTCAAGTGTCAAGAGCACTTTGGAAGGTAGAACCGCACTCATGATCGCAAAACCAAGCACTATGCGGCTTGAATGTA 4000  
 L S L L E K G A S A S E A T L E G R T A L M I A K Q A T H A V E C  
 ATAATATCCCGGAGCAATGCAAGCAATCTCTCAAAAGCGGCACTATGTAGAAATAGTACAGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4100  
 N N I P E Q C K H S L K G R L C V E I L E Q E D K R E Q I P R D V P  
 A in n1ml-4, n1ml-5  
 TCCCTCTTTTGCAGTGGCGCCGATGAATGAAGATGACGCTGCTGCTGCTTGAAGATAGAGTatcttatcaagttcttatttcttatttatttattt 4200  
 P S F A V A A D E L K M T L L D L E N P  
 atttatgtctctctctcttaggaaactgagtgaaactatgataactatctcttctgtctgtccactgttttagTTGCACTTCTCAACGCTTTTTCACAGG 4300  
 V A L A Q R L F P T  
 AAGCAAGCTGCAATGAGATCCCGGAAATGAAGGAGACATGTGAGTTTATAGTGAATAGCTGCTGAGCTGACCTGCTCACTGCTGCTGCTGCTGCTGCT 4400  
 E A Q A A M E I A E H K G T C E F I V T S L E P D R L T G T K R T S  
 ACCGGGTGTAAGATAGCACTTTTCAAGATCTTCAAGATCTTCAAGATCTTCAAGATCTTCAAGATCTTCAAGATCTTCAAGATCTTCAAGATCTT 4500  
 P G V K I A P F R I L E H Q S F L K A L S K T  
 actcttcttctcaaaaaaata 4600  
 V E L G K  
 GATCTCTCCCGCTGTTTCCGAGCTGCTGAGCAGATTATGAATGTGAGCACTGACTCACTGCTTCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4700  
 R F F P R C S A V L D Q I H N C E D L T Q L A C G E D D T A E K R L  
 ACAAAAG 4800  
 Q K K Q R Y M E I Q E T L K K A F S E D N L E G N S L T D S T  
 TCTTCCACATCGAAATCAACCGGTGGAAGAGGTTTAAACCTTCTCTCATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 4900  
 S S T S K S T G G K R S N R X L S H R R R  
 ATATAATCTGTTTTCATGAT 5000  
 TGTGCTTCAACAAATGTTTGAACAAATGTTTGAACAAATGTTTGAACAAATGTTTGAACAAATGTTTGAACAAATGTTTGAACAAATGTTTGAAC 5100  
 ttgctgaatcaaaagtgtgaaataatgttcaaatgttcaatgttcaatgttcaatgttcaatgttcaatgttcaatgttcaatgttcaatgttcaat 5200  
 catctgttattatgattctt 5300  
 tggggctgaagtgcttct 5400  
 ggaactct 5500  
 tct 5555

FIG. 6

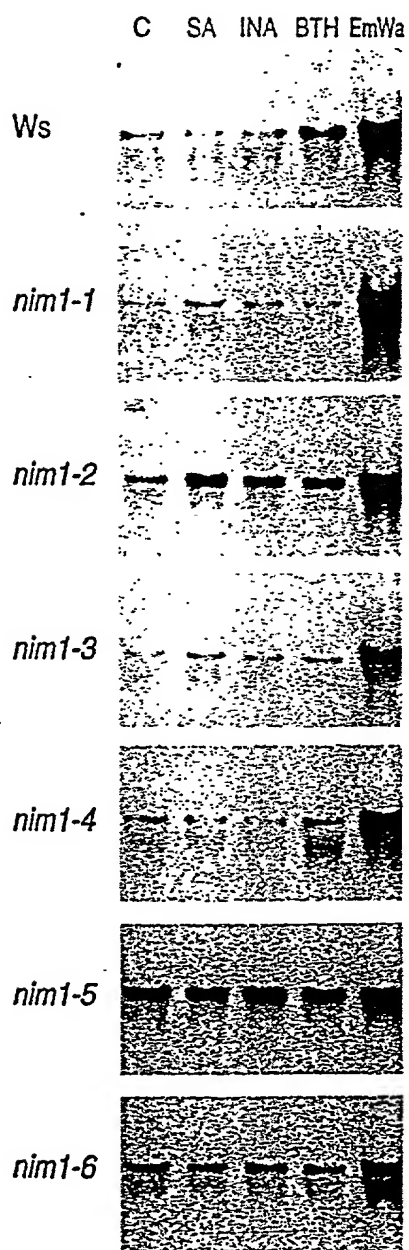


FIG. 7

20050920 09:05:00

NIM1 : 267 VSNVHKALDSDDIELVKLLLKEDHTNLDDACALHFAVAYCN 307  
+ + +ALD+ DIELVKL++ + +LDDA A+H+AV +CN  
Rice-1 : 33 IRRMRRALDAADIELVKLMVMGEGLDLDDALAVHYAVQHCN 155

NIM1 : 327 PRGYTVLHVAAMRKEPQLILSLLEKGASASEATLEGRT 364  
P G T LH+AA P ++ LL+ A + T +G T  
Rice-1 : 215 PTGKTALHLAAEMVSPDMVSVLLDHHADXNFRTXDGVT 328

NIM1 : 267 VSNVHKALDSDDIELVKLLLKEDHTNLDDACALHFAVAYCN 307  
+ + +ALD+ DIELVKL++ + +LDDA A+H+AV +CN  
Rice-2 : 33 IRRMRRALDAADIELVKLMVMGEGLDLDDALAVHYAVQHCN 155

NIM1 : 325 RNPRGYTVLHVAAMRKEPQLILSLLEK 351  
R P T LH+AA P ++ LL++  
Rice-2 : 208 RRPDSKTALHLAAEMVSPDMVSVLLDQ 288

NIM1 : 267 VSNVHKALDSDDIELVKLLLKEDHTNLDDACALHFAVAYCN 307  
+ + +ALD+ DIELVKL++ + +LDDA A+H+AV +CN  
Rice-3 : 33 IRRMRRALDAADIELVKLMVMGEGLDLDDALAVHYAVQHCN 155

NIM1 : 325 RNPRGYTVLHVAAMRKEPQLILSLLEK 351  
R P T LH+AA P ++ LL++  
Rice-3 : 208 RRPDSKTALHLAAEMVSPDMVSVLLDQ 288

NIM1 : 267 VSNVHKALDSDDIELVKLLLKEDHTNLDDACALHFAVAYCN 307  
+ + +ALD+ DIELVKL++ + +LDDA A+H+AV +CN  
Rice-4 : 33 IRRMRRALDAADIELVKLMVMGEGLDLDDALAVHYAVQHCN 155

NIM1 : 327 PRGYTVLHVAAMRKEPQLI 345  
P G T LH+AA P ++  
Rice-4 : 215 PTGKTALHLAAEMVSPDMV 271

FIG. 8